

REMARKS

The non-final Office Action mailed on August 31, 2006 (the “Office Action”) has been carefully reviewed. It is respectfully submitted that the present invention is patentably distinguishable from the cited references. The Applicant appreciates the Examiner’s acknowledgement of the Applicant’s election without traverse of Group II, claims 9-21 and 49-51. Reconsideration of this application in view of the amendments and remarks is respectfully requested.

Summary of the Amendments

Paragraph [0027] of the specification incorrectly identified the referenced patent number. The Examiner noted the correct patent number in the Office Action. The amendment to the specification does not introduce new matter and corrects a typographical error.

Summary of the Rejection of the Claims

In the Office Action dated August 31, 2006, the Examiner rejected claims 9-12, 17-21, 49 and 51 for non-statutory obviousness-type double patenting over claims 14-18 of co-pending Application No. 10/997,544.

Claims 9-12, 17-21, 49 and 51 were rejected under 35 U.S.C. § 102(a) as being anticipated by Vermillion, U.S. Patent No. 5,637,377, which issued on June 10, 1997 (hereinafter “Vermillion”).

Claims 9-12, 17-21 and 49 were rejected under 35 U.S.C. § 102(b) as being anticipated by McAllister et al., U.S. Patent No. 4,909,901, which issued on March 20, 1990 (hereinafter “McAllister et al.”).

Claims 9-13, 16-21 and 49 were rejected under 35 U.S.C. § 102(b) as being anticipated by Berbeco, U.S. Patent No. 4,455,350, which issued on June 18, 1984 (hereinafter “Berbeco”).

Claims 13-16 and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vermillion or McAllister et al. in view of Yasuda, U.S. Patent No. 3,682,696, which issued on August 8, 1972 (hereinafter “Yasuda”).

The Applicant respectfully traverses these rejections, and in view of the following arguments and amendments, requests reconsideration and withdrawal thereof.

Non-Statutory Obviousness Double Patenting Rejection

In order to overcome this rejection, a terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) is submitted herewith. In view of the terminal disclaimer, Applicant requests that the Examiner withdraw the obviousness-type double patenting rejection.

Rejection of the Claims Under 35 U.S.C. § 102(a)

The Examiner rejected claims 9-12, 17-21, 49 and 51 under 35 U.S.C. § 102(a) as being anticipated by Vermillion. The Applicant respectfully traverses the Examiner's rejection. The Examiner cited Vermillion's figures and expressly cited "a wavelike layer 24, sandwiched between two layers 28 and 30" to attempt to show the similarities between Vermillion's and the Applicant's inventions. The Examiner next cited Vermillion column 4, lines 16-54 to attempt to show that Vermillion discloses Applicant's electrical conductive layer containing dissipative static substances. The Examiner also noted that "Vermillion teaches that the electric conductive substance is carbon particles, preferably carbon black particles" and referenced column 4, lines 20-33 of Vermillion. The Examiner further noted that the medium is preferably made of Kraft pulp.

Vermillion does not teach or suggest the use of a static dissipative substance substantially homogeneously dispersed throughout the static dissipative linerboard as found in Applicant's claims 9 and 49. In contrast to Vermillion, the composition of the current invention creates a linerboard that contains a static dissipative substance substantially homogeneously dispersed throughout the composition. (Applicant's claims 9 and 49; paragraph 0098). Vermillion does not disclose, teach, suggest or infer creating a linerboard that has the characteristics of the current invention. Further, at col. 6, lines 36-42, Vermillion discloses using standard Kraft paper liner without treatments. Vermillion continues by stating that "the Kraft liner coverings are free of impregnation with conductive particulate material." (Vermillion col. 6, lines 61-62). Clearly Vermillion's Kraft paper made of "conventional manufacture and weight" does not anticipate or suggest the claimed composition.

In addition to claiming a homogeneous composition for the liner board, in claims 9 and 49 the Applicant also claims "an electrically conductive substance substantially homogeneously dispersed throughout said paperboard." The Applicant describes the substantially homogeneously dispersed paperboard as being composed of "[a] mixture including, but not

restricted to, wood pulp fiber, recycled news print, rags, construction paper, rice paper, water, dissipative colorants (pigments/dyes or combination thereof) and poly (diallyldimethylammonium chloride) or Carbowax or Diethanol Amide and other chemicals.” (Applicant’s claims 13-16 and 50; paragraph 0097). The process involves adding the mixture “to a suitable device, e.g., a large blender such as a hydrapulper or beater to insure a homogeneous and equal distribution of the raw materials” and blending the raw materials “until a desired, preferably homogeneous, suspension of wood pulp is achieved.” (Applicant’s paragraph 0097).

Vermillion fails to disclose the homogeneously dispersed composition of the Applicant’s linerboard and paperboard. Vermillion discloses Kraft paper that is either bare or has a coating with metallic components. (Vermillion col. 6, lines 61-62; col. 5, lines 62-65). Therefore, it is clear that Vermillion and the Applicant describe and claim different inventions. In view of the foregoing arguments, the Applicant respectfully requests reconsideration and withdrawal of the rejection of pending claims 9-12, 17-21, 49 and 51 under 35 U.S.C. § 102(a).

Rejection of the Claims Under 35 U.S.C. § 102(b)

The Examiner rejected claims 9-12, 17-21 and 49 under 35 U.S.C. § 102(b) as being anticipated by McAllister et al. The Applicant respectfully traverses the Examiner’s rejection. The Examiner referenced McAllister et al.’s radio frequency interference (RFI) or electromagnetic interference (EMI) shielding packaging material as provided by the conductive carbon particles on the inner layers. The Examiner also claimed McAllister et al. teaches a fibrous material composed of a first layer and a second layer and an inner layer containing conductive carbon particles. Further, the Examiner cited that McAllister et al. uses clay to coat the inner and outer layers to render the layers with the antistatic or statically dissipative properties and that the clay is uniformly distributed in the outer layers. The Examiner also mentioned the conductivity of the dissipative layers and the conductive layer as being within the range of the Applicant.

Although McAllister et al. teaches a first layer, an inner layer containing conductive carbon particles and a second layer throughout the figures and specification, these layers are not similar to the Applicant’s invention. McAllister et al.’s layers lack the aforementioned homogeneity of composition claimed by the Applicant in claims 9 and 49. Additionally, clay is an inorganic compound as is expressly mentioned in col. 2, line 56 of McAllister et al. Further,

McAllister et al. coats the clay on the inner and outer layers. (McAllister et al. col. 2, lines 33-39). Conversely, the Applicant's materials are all organic as is readily seen by the referenced and claimed materials. (Applicant's claims 13-16 and 50; paragraphs 90, 92, 96-98 and 111). The Applicant does not uniformly apply a dissipative coating to the outer layer. Instead, the Applicant's composition contains the static dissipative substance homogeneously dispersed throughout the composition as part of the formation of the paperboard and linerboard. (Applicant's claim 9 and 49). Therefore, the Applicant respectfully submits that McAllister fails to disclose the Applicant's invention specifically related to the homogeneous nature of both the outer linerboard (28, 30) and the sandwiched conductive medium (30).

Further, neither claim 9 or 49 reference nor claim any conductivity as cited in the rejection. The range claimed in McAllister cannot be the same range as the Applicant claims because conductivity and resistance are different measurements. Conductivity and resistance are not directly interchangeable properties. More specifically, conductivity is not a reciprocal of resistance. Instead, conductivity is the reciprocal of resistivity. Stated another way, conductivity has a length component whereas resistance does not. Thus, in view of the foregoing arguments, the Applicant respectfully requests reconsideration and withdrawal of the rejection of pending claims 9-12, 17-21 and 49 under 35 U.S.C. § 102(b).

Rejection of the Claims Under 35 U.S.C. § 102(b)

The Examiner rejected claims 9-13, 16-21 and 49 under 35 U.S.C. § 102(b) as being anticipated by Berbeco. The Applicant respectfully traverses the Examiner's rejection. The Examiner states that Berbeco teaches a static dissipating surface covering sheet comprising a middle layer having conductive properties and an outer layer having dissipative properties. The Examiner further stated that Berbeco teaches the use of ethylene glycol to provide static dissipative properties to the desired layer. The Examiner also stated that Berbeco teaches the use of carbon particles, including carbon black, in the electrical conductive middle sheet. A careful review of Berbeco discloses that the invention is for a laminate that is not sandwiched between layers of static dissipative linerboard. The Berbeco laminate comprises a single conductive layer and a single dissipative layer. (Berbeco, col. 2, line 59 – col. 3, line 11). Berbeco's invention discloses “[t]he top sheet 12 comprise[ing] a resin-impregnated sheet and include[ing] a Lewis acid-curable catalyst, to cure the resin.” (Berbeco, col. 6, lines 2-4).

The two-step impregnation processes to make a dissipative sheet in Berbeco is not equivalent to Applicant's homogeneous process that requires the introduction of the static dissipative properties during the formation of the paper pulp. (Applicant's claims 9 and 49; paragraph 0097 – 0098). Berbeco discusses impregnating the outer sheet 12 to provide the static dissipative properties. Clearly, an impregnated sheet will not have a homogeneous dispersion throughout the sheet.

The Applicant reiterates the same arguments from above regarding both the linerboard and paperboard. Berbeco fails to teach or suggest Applicant's composition which contains the static dissipative substance homogeneously dispersed throughout the composition as part of the formation of the paperboard and linerboard. (Applicant's claim 9 and 49). Impregnating the outer sheet 12 combined with Berbeco's references to creating various high-pressure laminates is clearly not the same process as making a homogeneous composition during the manufacturing of the paperboard or linerboard. (Berbeco Examples 1-4; col. 5, lines 28-43). A high-pressure process for impregnating a sheet with static dissipative properties requires the same sheet being impregnated to have already been formed. (Berbeco, Examples 1-4; col. 5, lines 28-43).

It is clear that Berbeco does not anticipate and is not equivalent to the Applicant's invention because Berbeco does not disclose Applicant's homogenous composition. Since Berbeco's high-pressure impregnation process is completely different from the Applicant's process, Berbeco's composition would not be the same as the differently claimed invention. Therefore, in view of the foregoing arguments, the Applicant respectfully requests reconsideration and withdrawal of the rejection of pending claims 9-13, 16-21 and 49 under 35 U.S.C. § 102(b).

Rejection of the Claims Under 35 U.S.C. § 103(a)

The examiner rejected claims 13-16 and 50 under 35 U.S.C. § 103(a) as being unpatentable over Vermillion or McAllister et al. in view of Yasuda. The Applicant respectfully traverses the Examiner's rejection. The Examiner indicated that neither Vermillion nor McAllister et al. discloses the use of the dissipative agents the Applicant claims. The Examiner next states that Yasuda teaches that the same substances can be used as electrification preventive substances, i.e., anti-static agents. The Examiner went on to state that Yasuda teaches that the electrification preventive substances can be either coated on the paper or added to the pulp. The Examiner further states that "using the substances taught by Yasuda as the dissipative agents of

the primary references would have been obvious to one of ordinary skill in the art, since he/she would have reasonable expectation of success if the compounds suggested by Yasuda were used for the intended purpose. The Examiner also stated that the compounds of Yasuda are the functional equivalents of the compounds of the primary references. The Examiner cites *In re Fout*, 675 F.2d 297, 213 U.S.P.Q. 532 (CCPA 1982) and *In re Siebentritt*, 372 F.2s 566, 152 U.S.P.Q. 618 (CCPA 1967) regarding the interchangeability of two or more compounds for a desired function and that substitution would have been obvious and “thus, express suggestion of desirability of the substitution of one for the other is unnecessary.”

The Applicant respectfully disagrees with the Examiner’s assertion that Yasuda’s compounds are the functional equivalent of Vermillion and McAllister et al. To work, Yasuda teaches that “[t]he invention is characterized by the method wherein a small quantity of a powder of a non-electrifiable inorganic substance . . . is added to either the pulp in the paper manufacturing process or to the coating material in the paper coating process.” (Yasuda col. 1, lines 30-37)(emphasis added). Additionally, Yasuda teaches that the non-electrifiable inorganic substance is obtained by melting an active surface agent of a hydrophilelypophile balance of a molecule (HLB) below a 9 in an organic solvent, and then causing it to adhere to the surface of the aforementioned powder. (Yasuda col. 1, lines 32-34)(emphasis added). Yasuda then discloses “utilizable” active agents from a Markush group. (Yasuda claims 2 and 4; col. 2, lines 1-55). Yasuda’s inorganic/organic compound is not the same as either Vermillion or McAllister et al.

A comparison of the active agents of Yasuda to both Vermillion and McAllister et al. produces a lack of any reference to similar agents in the primary references. Vermillion and McAllister et al. each have a single reference to a chemical composition not already discussed. Vermillion has a reference to a styrene acrylic polymer resins for the coating. McAllister et al. references a prior art example that used low density polyethylene which was disposed on the outer layers of the material for EMI and RFI shielding. Thus, the Applicant is unable to find a compound in either Vermillion or McAllister et al. that might qualify as a functional equivalent with those of Yasuda.

The Examiner’s attention is now directed to the MPEP. “In order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the

prior art, and cannot be based on applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents." MPEP § 2144.06, citing *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). In this instance the equivalency is not recognized by either Vermillion or McAllister et al. since neither claims a compound that is in the same chemical family as that disclosed in Yasuda. Therefore, the combination of Vermillion or McAllister et al. with Yasuda fails to suggest an equivalency in the prior art.

When considering Yasuda's invention, it is important to remember that Yasuda requires an inorganic compound to be blended with at least one organic compound selected from the group of aliphatic amine salts, aliphatic ammonium salts, polyethyleneglycol esters, polyethyleneglycol ethers, alkylphenol/polyethyleneglycol condensates, polyethyleneglycol alkylamides, polyethyleneglycol alkylamines, polyhydric alcohol esters, ester/ether condensates or alkylbetaines. The organic compounds are mixed with a material similar to dry active alumina powder to form a bond. The bonded organic and inorganic compounds (e.g., dry active alumina powder) are agitated with the paper pulp. After agitation, the mixture is heated to evaporate the organic compound. (Yasuda Example 1, col. 2, line 63 – col. 3, line 7). Applicant does not employ an inorganic compound to achieve the static dissipative properties. (Applicant's claims 13-16 and 50). Further, the end results of Yasuda is a paper with an inorganic compound adhered to the inside or surface of the paper in a uniform manner. (Yasuda col. 1, lines 35-38).

A careful reading of Yasuda's patent indicates that the invention fails to exhibit static shielding characteristics. Instead, Yasuda discloses an invention that is intended to prevent a charge from occurring, or as the Examiner referred to it, Yasuda discloses anti-static agents. (Yasuda col. 1, lines 26-29 and lines 13-22). Anti-static properties are not the same as static dissipative properties. Yasuda claims to prevent a static charge and the Applicant dissipates the static charge. Therefore, Yasuda does not disclose "a static dissipative substance substantially homogeneously dispersed throughout the static dissipative linerboard" as is found in Applicant's claims 9 and 49. As previously argued, neither Vermillion nor McAllister et al. disclose the Applicant's claimed composition. Therefore, the combination of Vermillion or McAllister et al. with Yasuda also fails to disclose the Applicant's claimed composition. Further still, there is not a suggestion to combine Vermillion or McAllister et al. with Yasuda. Thus, because the independent claims from which claims 13-16 and 50 depend are allowable, the Applicant respectfully asserts that the dependent claims should also be allowable.

The Applicant respectfully traverses these rejections and submit that the Examiner has failed to establish a *prima facie* basis for rejecting the claims under § 103(a). Further, the rejected claims all depend upon what the Applicant believes are now allowable claims. Thus, the Applicant respectfully requests reconsideration and withdrawal of the rejection of pending dependent claims 13-16 and 50 under 35 U.S.C. § 103(a).

CONCLUSION

Applicant has made an earnest effort to place this application in condition for allowance. In view of the foregoing amendments and remarks, a formal Notice of Allowance directed to claims 9-21 and 49-51 is respectfully solicited. Should the Examiner care to discuss any aspect of the foregoing response in greater detail, the undersigned attorney would welcome a telephone call.

This is intended to be a complete response to the Office Action mailed on August 31, 2006.

Respectfully submitted,



Date: February 28, 2007

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